

CHICAGO FORECAST DISTRICT.

The storm which first appeared on the north Pacific coast March 2 moved southeastward across the middle Rockies, and thence northeastward to the upper Lake region, reaching the latter section on the 6th. Its influence was widespread in the shape of snow and high winds in the greater portion of the district, and it was followed by colder weather except in the Rocky Mountain region. Forecasts and warnings well in advance of the storm's movement were issued.

Ample warnings were given of high winds and cold weather which prevailed in the Lake region on the 18th and 19th.

A storm which developed in the Rocky Mountain region on the 26th moved eastward across the Middle States during the following three days. It was accompanied by rain and snow and the warnings issued in advance of its approach were timely.—*H. J. Cox, Professor.*

SAN FRANCISCO FORECAST DISTRICT.

The month as a whole was remarkably free from storms. On the few dates when frost appeared it was successfully forecast. Almond trees in bloom experienced no damage from frost for the first time in five years during the month of March.—*A. G. McAdie, Forecast Official.*

PORTLAND, OREG., FORECAST DISTRICT.

On the morning of the 7th southwest storm signals were ordered at all stations on the coast, strait, and sound, and heavy rainfall and heavy gales occurred during the afternoon and night over the whole district. At Portland the storm was the severest of the winter, and was one of the worst ever experienced at that place. No damage to shipping was reported. Frost warnings were sent out on a number of dates and all were verified. The success of the frost warnings has been favorably commented upon.—*G. N. Salisbury, Acting Forecast Official.*

HAVANA FORECAST DISTRICT.

No severe storms occurred in the district during the month. Warnings were issued on a number of dates of falling temperature and high winds, and in a number of instances vessel masters were furnished information regarding wind direction and force.—*W. B. Stockman, Forecast Official.*

AREAS OF HIGH AND LOW PRESSURE.

During the month of March, 1900, there were twelve highs and thirteen lows which could be charted. (See Charts Nos. I and II.) A brief description of some of their characteristics is given herewith.

Highs.—All but Nos. III, V, VII, and VIII were first observed in the British Northwest Territory. Nos. I, IX, and XI moved almost due southeastward to the south Atlantic coast. No. II, after moving southeastward to the middle Mississippi Valley, turned east-northeastward and disappeared off the southern New England coast. Nos. IV and VI moved almost due eastward, the former dissipating in Ontario; the latter, after reaching Ontario, sent an offshoot to the southward, which disappeared off the southern North Carolina coast, the principal crest continuing eastward through New Brunswick. Nos. X and XII disappeared before reaching the Atlantic States. No. III originated over northern Lake Superior and moved due eastward to the Atlantic Ocean. No. V moved in an irregular parabolic course from the south Pacific coast to the middle Plateau. No. VII originated on the north California coast, moved northward to British Columbia, and thence eastward to the Saskatchewan Valley, where it remained stationary for three days, with steadily decreasing intensity, practically disappearing at the

end of the third day. No. VIII moved over the southern portions of the Gulf States, and thence northeastward off the North Carolina coast.

Movements of centers of areas of high and low pressure.

Number.	First observed.			Last observed.			Path.		Average velocities.	
	Date.	Lat. N.	Long. W.	Date.	Lat. N.	Long. W.	Length.	Duration.	Daily.	Hourly.
High areas.										
I.....	1, a.m.	53	108	4, a.m.	33	80	2,175	3.0	725	30.2
II.....	2, p.m.	53	108	8, p.m.	41	72	2,900	6.0	644	26.9
III.....	3, p.m.	48	85	6, p.m.	46	60	1,275	3.0	850	35.4
IV.....	8, a.m.	54	114	11, a.m.	46	78	1,725	3.0	575	24.0
V.....	8, a.m.	34	118	9, p.m.	39	109	1,175	1.5	783	32.6
VI ¹	11, a.m.	50	100	13, a.m.	47	65	1,825	2.0	912	38.0
VII.....	11, p.m.	41	124	14, a.m.	53	105	1,475	2.5	590	24.6
VIII.....	16, a.m.	32	95	18, a.m.	34	77	1,200	2.0	600	25.0
IX.....	19, a.m.	51	114	22, a.m.	38	79	2,375	3.0	792	33.0
X.....	23, a.m.	50	100	24, p.m.	45	81	1,025	1.5	683	28.5
XI.....	26, a.m.	53	108	1, p.m. ⁴	33	80	2,650	3.5	757	31.5
XII.....	31, a.m.	53	108	2, p.m. ⁴	41	87	1,475	2.5	590	24.6
Sums.....							23,270	30.5	9,489	395.4
Mean of 13 paths.....							1,790		730	30.4
Mean of 30.5 days.....									763	31.8
Low areas.										
I.....	1, p.m.	37	120	10, p.m.	47	60	4,600	9.0 ³	920	38.3
II.....	2, p.m.	47	106	5, a.m.	42	70	2,300	2.5	880	36.7
III.....	3, p.m.	32	107	8, a.m.	48	54	8,550	4.5	789	32.9
IV.....	10, p.m.	47	101	12, a.m.	32	81	1,725	1.5	1,150	47.9
V.....	11, p.m.	54	114	14, p.m.	47	60	2,675	3.0	892	37.2
VI.....	12, p.m.	37	97	13, p.m.	37	79	1,150	1.0	1,150	47.9
VII.....	13, a.m.	38	115	17, a.m.	50	68	3,625	4.0	906	37.8
VIII.....	17, p.m.	53	105	21, a.m.	50	68	3,300	3.5	657	27.4
IX.....	19, a.m.	35	95	19, p.m.	32	91	300	0.5	600	25.0
X.....	20, p.m.	54	114	24, a.m.	47	60	2,725	3.5	779	32.4
XI ¹	23, p.m.	54	114	23, a.m.	48	54	3,600	4.5	800	33.3
XII.....	24, a.m.	26	97	1, a.m. ⁴	47	60	3,925	4.0	981	40.9
XIII.....	25, a.m.	48	123	27, p.m.	28	82	5,075	7.0	725	30.2
	26, a.m.	26	97				1,100	1.5	738	30.5
Sums.....							38,560	46.0	11,962	498.4
Mean of 14 paths.....							2,574		854	35.6
Mean of 46.0 days.....									838	34.9

¹ Considered as two in sums and means. ² Stationary for 1.5 days. ³ Stationary for 4 days. ⁴ April.

Lows.—No. I originated in southern California, moved northward to Victoria, remained there for four days, and then moved eastward to the Atlantic Ocean. No. II originated in eastern Montana, and moved generally eastward to the southern New England coast. No. III was first noted in southwestern Texas, and moved northeastward, passing out into the Atlantic beyond Newfoundland. No. IV originated in central North Dakota, and moved rapidly southeastward to the south Atlantic coast, causing considerable snow in the District of Columbia and Virginia. Nos. V, VIII, X, and XI were first observed in the British Northwest, and moved almost due eastward to the Atlantic Ocean. No. V remained stationary in West Alberta for three days before moving, while No. XI was joined on the Maine coast by another low, which had moved up from southern Texas, keeping along the coast line during almost its entire course. No. VI was a fast-moving minor depression, which moved in one day from eastern Kansas to southern Virginia. It was really an offshoot from the lower portion of the trough of No. V. No. VII originated in southwestern Arizona, moved eastward to the middle Gulf coast, and thence northeastward, passing out north of the Gulf of St. Lawrence. No. IX was a slight local disturbance in the east portion of the west Gulf States, an offshoot from the lower portion of the trough of No. VIII. No. XII first appeared in British Columbia, pursued an irregular course to the North Carolina coast by way of central Texas and the Ohio Valley, and then turned northward along the coast, disappearing off Cape Breton Island on the morning of April 1, with the lowest barometer reading of the month, 28.84 inches. No. XIII was a local Gulf of Mexico storm of moderate intensity.—*H. C. Frankenfield, Forecast Official.*